SDMS DOCID# 1118485

JES

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

October 31, 2001

Ms. Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

SITE CLEANUP PROGRAM – GROUNDWATER MONITORING WELL MAINTENANCE AND PROTECTION REQUIREMENTS - EARL MANUFACTURING, 11862 BURKE STREET, SANTA FE SPRINGS, CA (SLIC NO. 725)

Dear Ms. Earl:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within the coastal watersheds of Los Angeles and Ventura Counties.

The Site Cleanup Program oversees corrective action (assessment and/or monitoring activities) and cleanup of releases from contaminated sites, leaking aboveground storage tanks, and Department of Defense facilities. Many of these sites have impacted groundwater resources, and as a result, we have required the installation of groundwater monitoring wells for assessment and cleanup purposes. Although we are not the local agency issuing permits for the installation, maintenance and/or abandonment of groundwater monitoring wells at contaminated sites, we are concerned that groundwater wells be adequately maintained to ensure that they do not become conduits for surface contamination reaching groundwater or that they be intentionally misused to pollute groundwater resources illegally.

In response to recent national security issues, please make sure that all well heads are adequately maintained and are provided with a water-tight cap and enclosed in a surface security structure that protects the well from surface water entry, accidental damage, unauthorized access, and vandalism in accordance with Section 115700 of the Health and Safety Code.

EARL MFG. CO., INC. • 11862 Burke Street • Santa Fe Springs, California 90670
(213) 945-2971 Fax (213) 945-2974
new area code is 562

AUGUST 31,2000

JOHN GEROUCH
CALIFORNIA REGIONAL WATER BOARD
320 W. 4th STREET,SUITE 200
LOS ANGELES,CALIFORNIA
90013

RE: LETTER OF 8/08/2000
FILE # 00-026,SLIC #752

DEAR MR. GEROUCH,

IN RESPONSE TO YOUR LETTER OF AUGUST 8,2000,WE WOULD LIKE TO REQUEST ADDITIONAL TIME FOR AN ADEQUATE REPLY. I HAVE AN APPOINTMENT WITH THOMAS DONG OF SCS ENGINEERS ON SEPTEMBER 6. HE HAS BEEN ON VACATION PART OF THIS MONTH AND EARL MFG. CO WAS CLOSED FOR VACATION ON AUGUST 14 thru 21.. DUE TO VACATION SCHEDULES WE WERE NOT ABLE TO DO ALL THE WORK REQUESTED IN YOUR LETTER. WE WILL GET THE INFORMATION READY AS SOON AS POSSIBLE.

SINCERELY,
Claudette Earl
CLAUDETTE EARL

EARL MFG. CO., INC. • 11862 Burke Street • Santa Fe Springs, California 90670
(213) 945-2971 Fax (213) 945-2974
new area code is 562

AUGUST 31,2000

JOHN GEROUCH
CALIFORNIA REGIONAL WATER BOARD
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SINCERELY,
Claudette Earl
CLAUDETTE EARL

California Regional Water Quality Control Board
Los Angeles Region
(50 Years Serving Coastal Los Angeles and Ventura Counties)

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Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

August 8, 2000

Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

EARL MANUFACTURING—11862 BURKE STREET, SANTA FE SPRINGS
(FILE NO. 00-026, SLIC NO. 752)

Dear Ms. Earl:

Our previous letter dated February 14, 2000, requested that you submit a site audit report and a work plan for additional soil investigation. On April 7, 2000, Board staff conducted an inspection of the above facility and was informed by your consultant, Mr. Richard Winstanley, that additional reports regarding soil and groundwater investigation were available. During the inspection, Board staff requested that you not submit the work plan for additional soil investigation until the site audit report and the other reports had been submitted and reviewed by Board staff.

We have received copies of the site audit report, dated April 27, 2000, and the following additional reports:

"Underground Storage Tank Removal" dated September 12, 1997, United Pacific Environmental.

"Soil Gas and Limited Soil Sampling Report" dated December 1998, SCS Engineers.

"Summary of Groundwater Monitoring Activities" dated December 8, 1999, SCS Engineers.

We have completed our review of the information listed above and have the following comments:

- Earl Manufacturing previously operated a vapor degreaser and used 1,1,1-trichloroethane.
- On August 13, 1997, a 1,000-gallon underground storage tank (UST) was removed from the site.
- Soil samples collected from beneath the UST were found to contain perchloroethene (PCE) at 422,000 µg/kg.
- On November 13, 1998, SCS Engineers conducted additional soil investigation by collecting 10 soil gas samples at and around the former UST location and two soil samples beneath the former UST location.

- Soil samples collected at 11.5 and 20 feet BGS, below the former location of the UST, were found to contain perchloroethene (PCE) at 270 micrograms per kilogram (µg/kg) and 950 µg/kg, respectively. SCS Engineers recommended that no further investigation or remediation was warranted.

- On about November 11, 1999, SCS Engineers installed a groundwater monitoring well at the location of the former UST.

- PCE, trichloroethene (TCE), and cis1,2-dichloroethene were detected in groundwater at 13,700 µg/L, 1,730 µg/L and 6.3 µg/L, respectively.

- Soils beneath the former UST consist of medium brown slightly moist clayey silt.

Based upon the information contained in these reports, we have determined that the previous chemical use at this facility has resulted in soil and groundwater contamination, but the full lateral and vertical extent of soil and groundwater contamination has not been adequately defined.

Therefore, Earl Manufacturing is required to:

1. Investigate the potential for soil contamination beneath the former vapor degreaser.
2. Determine site-specific soil remedial goals for soils contaminated with VOCs in accordance with the Regional Board's "Interim Site Assessment and Cleanup Guidebook.
3. Submit a work plan to investigate the soils beneath the former vapor degreaser, determine the vertical and horizontal extent of contamination beneath the former UST, and investigate the lateral and vertical extent of groundwater contamination.
4. Develop a remedial action plan for soils beneath the former UST.

Please submit two copies a work plan incorporating the requirements listed in items one through four above by September 1, 2000. Please call me at (213) 576-6737 if you have any questions.

Sincerely,

John Geroch
Associate Engineering Geologist
Site Cleanup Unit

Cc Dave Klunk, Director of Environmental Services, City of Santa Fe Springs
Brenda Nelson, City of Santa Fe Springs Fire Department
Craig Cooper, United States Environmental Protection Agency
Jim Leserman, Water Replenishment District of Southern California
Lori Parnass, Department of Toxic Substances Control

California Regional Water Quality Control Board
Los Angeles Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
320 West 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640

Gray Davis
Governor

FAX TRANSMITTAL

DATE: _____

TO: _____ FAX No. _____

_____ _____

_____ _____

_____ _____

FROM: _____ TEL.# (213) 576- _____

FAX # (213) 576 - 6717

NUMBER OF PAGES SENT (INCLUDING THIS COVER PAGE): _____

MESSAGE: _____

WDP ENTERPRISES
5650 AZURE WAY
LONG BEACH, CA 90803

(323) 589-3505 (800) 870-8805

April 27, 2000

Mr. John Geroch
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th St., Suite 200
Los Angeles, CA 90013

Subject: **EARL MANUFACTURING**
11862 BURKE ST., SANTA FE SPRINGS, CA
(FILE No. 00-026, SLIC NO. 752)

Dear Mr. Geroch:

In accordance with our discussions, the following data is submitted for your review:

1. Vapor Degreaser:

    - Installed in 1966
    - Discontinued use in 1992
    - Chemical used 1,1,1,-Trichloroethane

2. Industrial Waste Discharge Permit – See attached letters dated October 1, 1992 and October 19, 1992.

Hopefully the above information will satisfy your requirements.

Sincerely,

Richard E. Winstanley

Richard E. Winstanley
President

REW:gf

Attachment

cc: C. Earl

RW040100.LTR

Ecotek, Inc.

5855 Naples Plaza, Ste. 217 • Long Beach, CA 90803 • Tel. (213) 433-3663 • Fax (213) 594-8991

October 19, 1992

Tom Hall
City of Santa Fe Springs Fire Department
11300 Greenstone Ave.
Santa Fe Springs, CA 90670-4619

Subject: Industrial Waste Discharge Permit
Earl Manufacturing Company
11876 Burke Street, Santa Fe Springs, CA 90670

Dear Mr. Hall:

By letter dated October 1, 1992, Earl Manufacturing notified the City that an Industrial Waste Discharge Permit is not required for the facility. You subsequently requested additional information. On behalf of Earl Manufacturing in my role as their environmental consultant, I am responding to your request.

The facility removed from service the process that originally required a permit. The process was associated with a cooling tower mounted on the facility roof. The cooling tower was used to cool water that was circulated in the first stage of condensing coils in a vapor degreaser. A portion of cooling tower water was extracted and directed to sewer disposal to allow for make-up from the water treatment system. This bleed-off system was the original permitted process. The vapor degreaser has been converted to a hot water degreaser. The condensing systems have been removed from service since vapor condensing is no longer required.

The bleed line from the roof discharged to an inspection box mounted in the floor of the facility. A three inch line discharged waste water from the inspection box to the sewer system. The bleed line was capped above the inspection box and the sewer line was capped in the box. The inspection box was then sealed with concrete. Enclosed are photographs that show the capped pipes and the sealed inspection box.

I trust that this information meets your needs. Please contact me if you have any questions.

Sincerely,

Gregory Roche

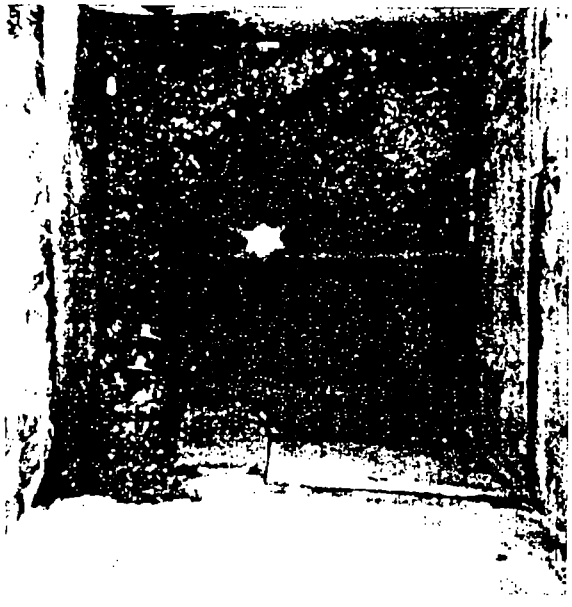
Gregory Roche, PE, REA
Principal

Enclosure
c. Earl Manufacturing

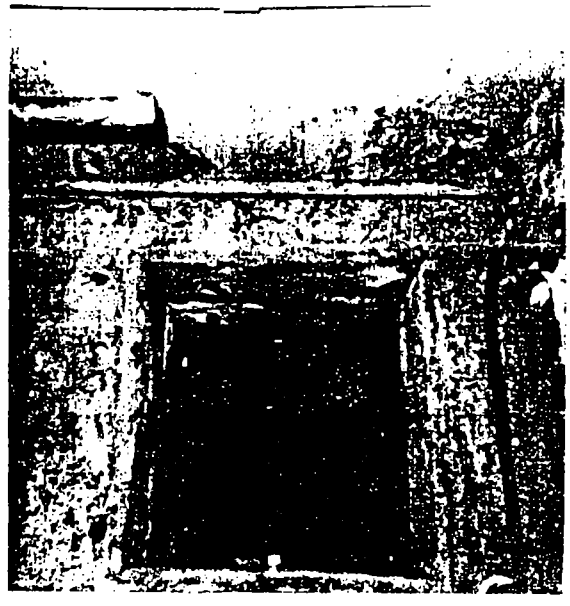
Photographs Showing Closure Of Industrial Waste Connection To Sewer System

Earl Manufacturing Company
11876 Burke Street
Santa Fe Springs, CA 90670

October 10, 1992



3" SEWER DRAIN CAPPED-OFF
EARL MFG. CO.



3" SEWER DRAIN & PIPE
CAPPED-OFF...
EARL MFG. CO.

SEWER BOX FILLED WITH
GRAVEL & CEMENT.
EARL MFG. CO.

October 1, 1992

Tom Hall
City of Santa Fe Springs Fire Department
11300 Greenstone Ave.
Santa Fe Springs, CA 90670-4619

Subject: Industrial Waste Discharge Permit

Dear Mr. Hall:

By letter dated September 2, 1992, we were notified that a permit may be required by the City of Santa Fe Springs for the discharge of industrial waste water to the sewer system. We understand a permit would also be required for treating industrial waste water on-site.

We have reviewed our facility operation and determined that we do not discharge industrial waste water to the sewer system and we do not treat industrial waste water on-site. The only material discharged to the sewer system is sanitary waste.

We understand by the September 2, 1992 letter that a permit is not required for our situation. Please advise me if this is an incorrect understanding. I can be reached at (310) 945-2971 if you have any questions or require additional information.

Sincerely,

Claudette Earl
Earl Manufacturing Company, Inc.
11876 Burke Street
Santa Fe Springs, CA 90670

WDF ENTERPRISES
8950 AZURE WAY
LONG BEACH, CA 90803
(213) 589-3808 (800) 870-8805

MR. JOHN GEROCH
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION
320 W. 4TH STREET, SUITE 200
LOS ANGELES, CA 90013

90013-2343 51

California Regional Water Quality Control Board
Los Angeles Region

Winston H. Hickox
Secretary for Environmental Protection

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/~rwqcb4

Gray Davis
Governor

February 14, 2000

Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

EARL MANUFACTURING—11862 BURKE STREET, SANTA FE SPRINGS
(FILE NO. 00-026, SLIC NO. 752)

Dear Ms. Earl:

Your case has been transferred by the City of Santa Fe Springs to the Los Angeles Regional Water Quality Control Board (Regional Board) for further investigation. We have reviewed the "Underground Storage Tank Removal" report (Report) dated September 12, 1997, and have the following comments:

- A 1,000-gallon underground storage tank (UST) was removed on August 13, 1997.
- Soil beneath the tank had a "...moderate solvent like odor" and analysis of confirmation soil samples collected from soil beneath the tank contained perchloroethene (PCE) at 422,000 µg/kg.
- The high concentration of PCE in the soil sample resulted in a relatively high detection limit for other volatile organic chemicals (VOCs). Therefore, the presence of other VOCs at concentrations exceeding the maximum allowable concentrations in soil for the protection of human health and groundwater resources could not be determined.

Based upon the information contained in the Report, we have determined that the soil beneath the tank has been contaminated with PCE, but the full extent of PCE contamination has not been adequately determined.

Therefore, you are required to determine the full extent of soil contamination. You are required to submit a work plan that specifies the number and location of additional soil borings and/or soil gas sampling locations to determine the full lateral and vertical extent of soil contamination. Lower detection limits are required to determine the presence of any other volatile organic compounds that may be present.

You are also required to submit a site audit report, which explains in detail, all previous and current operations at the site, listing dates each operation started and ended, location of each operation, type and amount of all chemicals used or produced for each operation, and volume and disposal locations (onsite and offsite) for each waste or unused chemicals for each operation. In addition, you are required to submit all information relative to the following items:

1. All inspection reports and following correspondence by Federal, State or local agencies.

2. All UST removal soil sampling reports containing soil sampling and analysis data (except what has been already provided).

3. All previous environmental site assessment reports discussing chemical handling and storage practices; waste handling and storage practices, soils, geology, hydrogeology, soil sampling and soil analysis data, and ground water sampling and ground water analysis data.

4. Piping diagrams of the wastewater collection and treatment system including all sumps, pumps, drains, piping, pumping stations, and holding and treatment tanks.

5. All information regarding aboveground or underground tank testing, repairs, upgrades, or replacements.

Please submit two copies of the work plan for additional soil assessment and two copies of the site audit report by **April 28, 2000.**

Please call me at (213) 576-6737 if you have any questions.

Sincerely,

John Geroch
Associate Engineering Geologist
Site Cleanup Unit

Cc Dave Klunk, Director of Environmental Services, City of Santa Fe Springs
Brenda Nelson, City of Santa Fe Springs Fire Department
Craig Cooper, United States Environmental Protection Agency
Jim Leserman, Water Replenishment District of Southern California
Lori Parnass, Department of Toxic Substances Control

Environmental Consultants
3711 Long Beach Boulevard
Ninth Floor
Long Beach, CA 90807-3315
562 426-9544
FAX 562 427-0805
http://www.scseng.com

SCS ENGINEERS

December 8, 1999
File No. 0199164.00

Ms. Claudette Earl
Earl Manufacturing Company, Inc.
11862 Burke Street
Santa Fe Springs, CA 90670
Telephone 562-945-2971
Copy via facsimile 562-945-2974

Subject: **Summary of Groundwater Monitoring Activities; Earl Manufacturing, 11862 Burke Street, Santa Fe Springs**

Dear Ms. Earl:

This letter constitutes SCS Engineers' (SCS) report of groundwater monitoring well installation, development, and sampling in the immediate vicinity of the former underground storage tank (UST). The purpose of the single monitoring well was to assess potential impacts to groundwater in a "worst case" location.

Groundwater Monitoring Well Installation and Development

A hollow-stem auger drill rig, operated by Layne Christensen Company, was mobilized to the site under SCS oversight to install one well to a depth of 42 feet below ground surface (bgs) in an area immediately south of the main building (Figures 1, Appendix A). Soil samples were collected at 5-foot intervals for visual examination using a Modified California Sampler (split spoon). A copy of the boring log is included in Appendix B. The well was constructed of 2-inch diameter Schedule 40 PVC, screened with 0.010-inch wide factory slotted Schedule 40 PVC from approximately 22 to 42 feet bgs. A filter pack of No. 2/16 sand was placed in the annular space surrounding the screen. The sand was filled to 3-feet above the top of the screen. A 3-foot thick bentonite seal was placed above the filter pack, followed by bentonite cement grout to the surface. A flush-mounted traffic-rated locking well box was cemented in place above the casing. Figure 3 (Appendix A) provides an example of typical well construction details.

Following well construction, the bentonite-cement grout was allowed to cure for 8 days. After this time period, the well was developed to remove the finer material from the formation and filter pack surrounding the well. Development consisted of a combination of surging and bailing which continued until relatively clear water (i.e. few observable fine materials) was obtained. First, the well was bailed to remove standing water and any sediment within the casing. A surge block was used to force water into and out of the well screen. This removed fine sediment surrounding the well screen and improved the flow characteristics of the well. The surge block and bailer was steam cleaned prior to being introduced to the well.

After surging, the well was bailed again until the water removed was relatively free of sediment. Soil cuttings and development water were drummed and left on site.

Groundwater Sampling and Analysis

Prior to initiating sampling activities, SCS measured the static water level using a water level indicator. The water level indicator was cleaned prior to measuring the water level in the well using a non-phosphate biodegradable detergent and fresh tap water, followed by a distilled or deionized water rinse. Depth to water, water surface elevation, and purging information was recorded on a field data sheet which is included in Appendix C of this document.

The well to be sampled, MW-1, was purged of a minimum of 3 casing volumes using a dedicated polyethylene disposable bailer, prior to sample collection. During purging, measurements of temperature, specific conductivity, turbidity, and pH were recorded in well sampling logs to ensure stabilization of groundwater conditions before sampling.

After purging, groundwater samples were collected by using a dedicated polyethylene disposable bailer attached to a nylon cord. Groundwater samples were placed in appropriate pre-cleaned containers obtained from the analytical laboratory. For this investigation groundwater samples were collected in 40 ml glass VOA bottles. New disposable latex sample gloves were used during sample collection. Samples were labeled and immediately placed in a refrigerated cooler for transport to Advanced Technology Laboratory, a state-certified analytical laboratory, where one sample was analyzed for volatile organic compounds by EPA Method 8260 within the appropriate holding time. Laboratory results and a copy of the chain-of-custody form are included in Appendix D.

Laboratory Results

Analysis indicates a concentration of tetrachloroethene (PCE) of 13,700 ug/l (micrograms per liter; equivalent to parts per billion) and of trichloroethene (TCE) of 1,730 ug/l. In addition, trace concentrations of 1,1,1-trichloroethane and 1,1-dichloroethene were detected. Maximum contaminant levels specified by State regulations for drinking water are 5 ug/l for either PCE or TCE.

Interpretation of Results

Both PCE and TCE were detected in groundwater in concentrations that would be considered significantly elevated by the Regional Water Quality Control Board (RWQCB).

Although *detectable* concentrations of PCE and TCE might be expected in groundwater in many areas of Santa Fe Springs, and although low concentrations (up to several tens of parts per billion) might be considered "background" in shallow groundwater in some areas of the city, the concentrations detected in the sample collected are significantly higher than what might be expected as a background level. In addition, the fact that PCE was detected previously in soil samples from the UST area is likely to be interpreted by RWQCB staff as indicating the UST was the source of the PCE in groundwater.

Conclusions

Based on the detected PCE and TCE in groundwater, it appears unlikely that closure will be granted by the RWQCB in the near future. Prior to considering closure, it seems likely that RWQCB would request installation of additional wells (perhaps one upgradient and one further downgradient or to the west) and sampling of all wells once per calendar quarter for a minimum of one year. Additional investigative activities might also be requested.

If you have any questions, please feel free to call.

Very truly yours,

Kenneth H. Lister, Ph.D., C.E.G.
Project Manager

Thomas Dong

Thomas Dong, R.E.A.
Vice President
SCS ENGINEERS

Enclosures

APPENDIX A

FIGURES

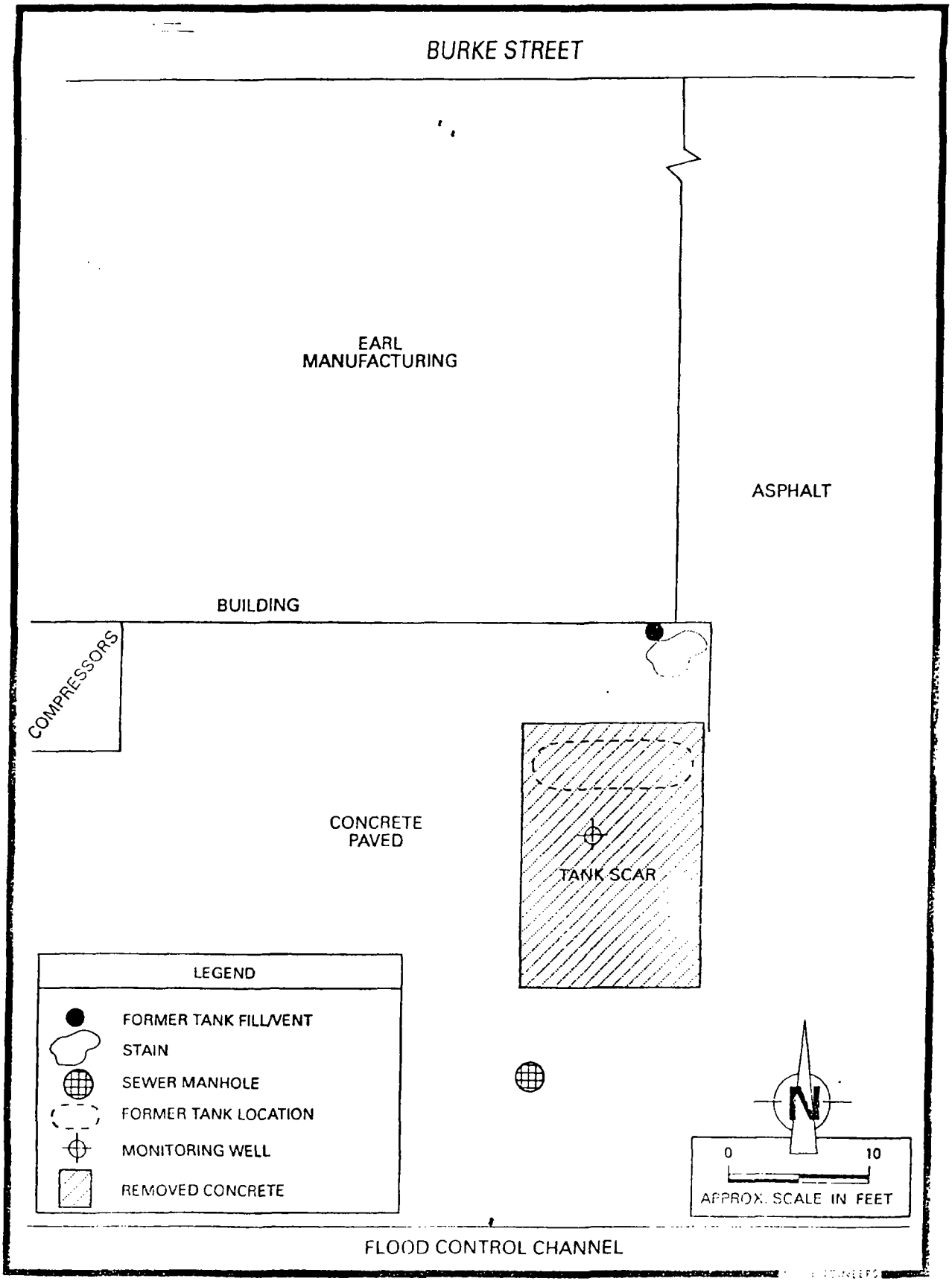


Figure 1. Monitoring Well Location, Earl Manufacturing, Santa Fe Springs, CA.

SCS ENGINEERS — BORING LOG

3711 Long Beach Boulevard, 9th Flr.
Long Beach, California 90807-3315

BORING NUMBER: MW-1

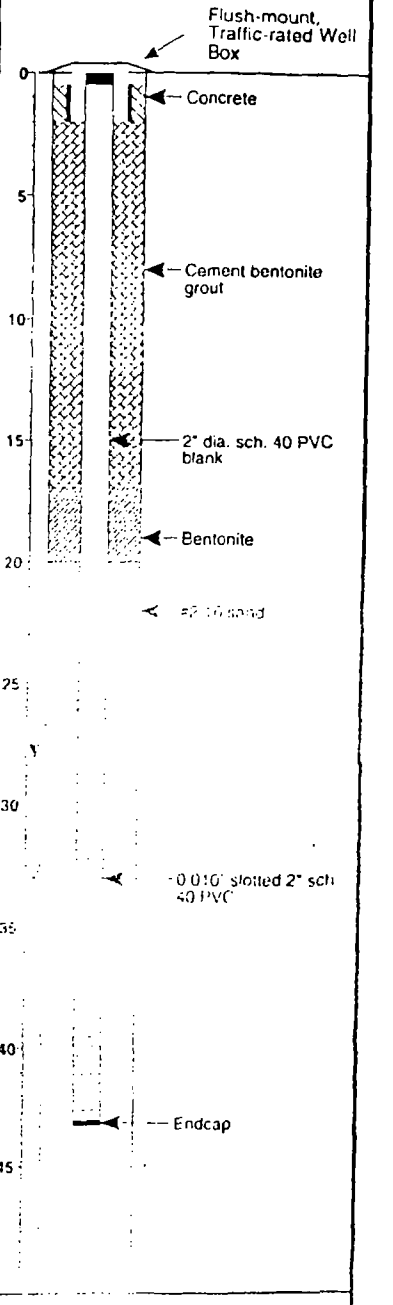
Earl Mfg.
11862 Burke
Santa Fe Springs, CA

JOB NUMBER: 01199164.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0							
1	5					ML		Dark brown clayey silt, dry, slight odor
2								
3	10					CL		Medium brown silty clay, slightly moist, no odor
4								
5	15			2 4 8		ML		Medium brown clayey silt, very slightly moist, no odor
6	20			4 12 17		ML		Light brown-gray silt with some fine to medium-grained sand, very slightly moist, no odor
7								
8	25			6 10 15		SP		Light brown fine to medium grained sand, moist, no odor
9								28' - water first encountered
10	30			14 37 50		SW		Light brown well-graded fine to coarse-grained sand (predominantly coarse) with some silt and gravell, wet, no odor
11	35			11 15 20		SW ML		Light brown medium to coarse grained sand, some fine sand and few cobbles (gneiss-granitic), well-graded Medium brown clayey silt, dry to slightly moist
12	40			6 13		SW		Light brown sands, some cobbles, well-graded, wet
13						ML		Light brown silt, slightly clayey, moist, no odor
14	45			21 7 16		ML		Medium brown clayey silt, moist
15	50							

Completion Detail



Drilling Company: Layne Cristensen
Drilling Method: Hollow Stem Auger
Logged By: C. Farrell
Sampling Method: California split spoon

Date Started: 11/10/99
Date Ended: 11/10/99
Boring Diameter: 2 in.

Water: 28.0 ft.
45.0 ft.

I:\GRAPHICS\LOGS 2000\01199164.GPJ STD_LOG.GDT 11/17/99

APPENDIX C

FIELD SAMPLE SHEET

WELL SAMPLING RECORD

SCS ENGINEERS

PROJECT INFORMATION

PROJECT: EARL MEG.
JOB NUMBER: 01199164.00
PERSONNEL: LW

DATE: 11/22/99
WEATHER/TEMP: Sunny 65
SITE CONDITIONS: Lot

MONITORING WELL DATA

WELL NUMBER: MW-1
DEPTH OF WELL: 43
WATER HEIGHT: 15.96
GALLONS/FOOT: .16
WATER VOLUME: 2.5 x 3 = 7.5

TIME OF MEASUREMENT: 9:30
SCREENED INTERVAL: 23-43
REFERENCE POINT:
DEPTH TO WATER: 27.04
80% RECHARGE LEVEL: [illegible]

SHEEN: YES (NO)
ODOR: NO

FREE PRODUCT: YES (NO)
STATIC THICKNESS:
TRUE THICKNESS:

PURGING DATA

EQUIPMENT: Disposable bailer
TUBING (TYPE): -
PURGE START: 9:45
PURGING RATE: -

PURGING DEPTH: 25'
PURGE END: 10:15
PURGED VOL (GALS): 7.5

TIME	VOLUME (GAL)	EC	pH	TURBIDITY (NTUs)	TEMP (F)	COMMENT
9:55	2.5	1.81	6.89	>999	20.1	cloudy, colorless
10:05	5	1.76	7.21	>999	20.5	" "
10:15	7.5	1.75	7.28	>999	19.9	" "
11:20	Sample	1.71	7.21	135	21.0	cloudy, colorless

OTHER COMMENTS: Water is cloudy + Lt. brown in color. There is no sheen or odor. I will allow water to settle + recharge before samples are taken.

SAMPLING INFORMATION

PUMP (TYPE): -
BAILER (TYPE): Disposible

SAMPLE ID	CONTAINER	TIME	ANALYSIS/COMMENTS
~~8260~~ MW-1A	VOA		8260
MW-1B	VOA		ARCHIVE

APPENDIX D

ANALYTICAL RESULTS

December 6, 1999 ELAP No.: 1838

SCS Engineers
3711 Long Beach Blvd. 9th Floor
Long Beach, CA 90807

ATTN: Cristi Farell

Client's Project: Earl Mtg., 01199164.00
Lab No.: 39872-001/002

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Cheryl De Los Reyes
Technical Operations Manager
CDR/ra

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Client: SCS Engineers
Attn: Cristi Farell

Client's Project: Earl Mfg., 01199164.00

Date Received: 11/22/99
Matrix: WATER
Units: UG/L
Date Amended: 12/02/99

EPA Method 8260B

Lab No.:		M.BLANK		39872-001							
Client Sample I.D.:		--		MW-1A							
Date Sampled:		--		11/22/99							
QC Batch #:		T8260W114		T8260W114							
Date Analyzed:		11/24/1999		11/25/1999							
Analyst Initials:		YM		YM							
Dilution Factor:		1		1							
ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
benzene	5	5	ND	5	ND						
bromobenzene	5	5	ND	5	ND						
bromodichloromethane	5	5	ND	5	ND						
bromoform	5	5	ND	5	ND						
bromomethane	5	5	ND	5	ND						
n-butylbenzene	5	5	ND	5	ND						
sec-butylbenzene	5	5	ND	5	ND						
tert-butylbenzene	5	5	ND	5	ND						
carbon tetrachloride	5	5	ND	5	ND						
chlorobenzene	5	5	ND	5	ND						
chloroethane	5	5	ND	5	ND						
chloroform	5	5	ND	5	ND						
chloromethane	5	5	ND	5	ND						
2-chlorotoluene	5	5	ND	5	ND						
4-chlorotoluene	5	5	ND	5	ND						
dibromochloromethane	5	5	ND	5	ND						
1,2-dibromo-3-chloropropane	5	5	ND	5	ND						
1,2-dibromoethane	5	5	ND	5	ND						
dibromomethane	5	5	ND	5	ND						
1,2-dichlorobenzene	5	5	ND	5	ND						
1,3-dichlorobenzene	5	5	ND	5	ND						
1,4-dichlorobenzene	5	5	ND	5	ND						
dichlorodifluoromethane	5	5	ND	5	ND						
1,1-dichloroethane	5	5	ND	5	ND						
1,2-dichloroethane	5	5	ND	5	ND						
1,1-dichloroethene	5	5	ND	5	6.3						
cis-1,2-dichloroethene	5	5	ND	5	ND						
trans-1,2-dichloroethene	5	5	ND	5	ND						
1,2-dichloropropane	5	5	ND	5	ND						
1,3-dichloropropane	5	5	ND	5	ND						
2,2-dichloropropane	5	5	ND	5	ND						
1,1-dichloropropene	5	5	ND	5	ND						
ethylbenzene	5	5	ND	5	ND						
hexachlorobutadiene	5	5	ND	5	ND						

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DLR = MDL x Dilution Factor
NA = Not Analyzed

The cover letter is an integral part of this analytical report.

Client: SCS Engineers
Attn: Cristi Farell

Client's Project: Earl Mfg., 01199164.00

Date Received: 11/22/99
Matrix: WATER
Units: UG/L
Date Analyzed: 12/02/99

EPA Method 8260B

Lab No.:	M.BLANK			39872-001							
Client Sample I.D.:	--			MW-1A							
ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
isopropylbenzene	5	5	ND	5	ND						
4-isopropyltoluene	5	5	ND	5	ND						
methylene chloride	5	5	ND	5	ND						
naphthalene	5	5	ND	5	ND						
n-propylbenzene	5	5	ND	5	ND						
styrene	5	5	ND	5	ND						
1,1,1,2-tetrachloroethane	5	5	ND	5	ND						
1,1,2,2-tetrachloroethane	5	5	ND	5	ND						
tetrachloroethene	5	5	ND	1000	13700*						
toluene	5	5	ND	5	ND						
1,2,3-trichlorobenzene	5	5	ND	5	ND						
1,2,4-trichlorobenzene	5	5	ND	5	ND						
1,1,1-trichloroethane	5	5	ND	5	8.3						
1,1,2-trichloroethane	5	5	ND	5	ND						
trichloroethene	5	5	ND	1000	1730*						
trichlorofluoromethane	5	5	ND	5	ND						
1,2,3-trichloropropane	5	5	ND	5	ND						
1,2,4-trimethylbenzene	5	5	ND	5	ND						
1,3,5-trimethylbenzene	5	5	ND	5	ND						
vinyl chloride	5	5	ND	5	ND						
o-xylene	5	5	ND	5	ND						
m,p-xylene	5	5	ND	5	ND						

Matrix Spike and Matrix Spike Duplicate Report #

Lab No.:	MBLANK		BS		BSD					
QC Batch Number:	T8260W114		T8260W114		T8260W114					
ANALYTE	DLR	Results	Results	%Rec.	Results	%Rec.	RPD %	Rec. Limits	RPD Limits	Amount
1,1-dichloroethene	5	ND	59	117	57	114	3	61-151	21	50
benzene	5	ND	63	126	58	117	7	73-131	15	50
trichloroethene	5	ND	48	95	44	88	8	72-128	15	50
toluene	5	ND	56	112	53	106	6	63-140	14	50
chlorobenzene	5	ND	56	111	52	104	7	81-115	11	50

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DLR = MDL x Dilution Factor
NA = Not Analyzed
* = Dilution factor is 200. Sample analyzed on 12/02/1999.

Approved/Reviewed By: C. Persaud

Date: 12/03/99

Compton Persaud
Department Supervisor

Original ample result may be below detection limit. The result was used for % Recovery calculation purposes only.

The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: @ Date: 11-22 Time: 1720

Method of Transport: Walk-in ✓ | Courier ☐ | UPS ☐ | FED. EXP. ☐ | ATL ☐

Sample Condition Upon Receipt:
1. CHILLED Y☒ N☐ | 4. SEALED Y | N
2. HEADSPACE (VOA) Y☐ N☒ | 5. # OF SPLS MATCH COC Y✓ | N
3. CONTAINER INTACT Y☒ N☐ | 6. PRESERVED ✓

Client: SCS ENGINEERS
Attn: CRISTI FARELL
Address: 3711 Long Beach Blvd. 9th Floor
City: Long Beach State: CA Zip Code: 90807
TEL: 562 426 [illegible]
FAX:

Project Name: EARL MFG. Project #: 01199164.00 Sampler: Printed Name: LANCE WEAVER (Signature)

Relinquished by (Signature and Printed Name) Date: 11/22/99 Time: 17:00 Received by (Signature and Printed Name) Date: 11/22/99

Relinquished by (Signature and Printed Name) Date: Time: Received by (Signature and Printed Name) Date:

Relinquished by (Signature and Printed Name) Date: Time: Received by (Signature and Printed Name) Date:

SHIP TO LAB:
(SUB CONTRACT)
TEST
ATL #
DATE:
CLIENT I.D.

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name
Signature
Date:

Send Report To:
Attn: CRISTI FARELL
Co:
Address
City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE | OIL • SOLVENT • LIQUID | WATER • WASTEWATER | DRINKING WATER | AIR | WIPE • PETLE | OTHER

QA/QC INFORMATION: RTNE RWQCB

ITEM	LAB USE ONLY: Batch # / Lab No.	Sample Description: Sample I.D.	Date	Time	TAT	#	Type	REMARKS
	39872-001	MW-1A	11/22	11:20	E		V	
	002	MW-1B	"	"	I		I	

* TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr | B= Emergency Next workday | C= Critical 2 Workdays | D= Urgent 3 Workdays | E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=[illegible] B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO3 S=H SO4 Z=Zn(AC)2

California Regional Water Quality Control Board
Los Angeles Region

Winston H. Hickox
Secretary for
Environmental
Protection

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/~rwqcb4

Gray Davis
Governor

April 5, 1999

JG

NO PLA?

Mr. Thomas Dong
SCS Engineers
3711 Long Beach Boulevard, Ninth Floor
Long Beach, CA 90807

SPILLS, LEAKS, INVESTIGATIONS AND CLEANUP OVERSIGHT COST REIMBURSEMENT ACCOUNT – EARL MANUFACTURING – 11862 BURKE STREET, SANTA FE SPRINGS, SANTA FE SPRINGS (SLIC NO. 725)

Dear Mr. Dong:

The California Water Code (CWC), Section 13304, allows the Regional Board to recover reasonable expenses from the responsible party to oversee cleanup of unregulated releases which have adversely affected waters of the State.

Various chlorinated volatile organic compounds were detected during the removal of a former 1,000 gallons underground storage tank occurred on July 1997. Sludge and soil samples were taken from the tank and four feet below the bottom of the tank. Up to 7,180 mg/kg and 422 mg/kg of tetrachloroethylene were reported in sludge and soil samples, respectively. Other compounds such as 1,1-dichloroethane, trichloroethylene and 1,1,1-trichloroethane were also reported with elevated concentrations. The first encountered shallow groundwater was around 24 to 40 feet below ground surface. The soil below the tank was sandy silt. The released products impose a threat to the groundwater quality and the beneficial uses of the State's Waters. A complete site assessment and remediation is required.

Estimate of Works to be performed

Board staff estimates the following work will be done for your site during the Regional Water Board's 1998/1999 fiscal year (July1, 1998 to June 30, 1999):

1. Review Underground Storage Tank Removal Report dated September 12, 1997, and submitted soil vapor data dated February 9, 1999;
2. Request and review workplan to characterize the whole site and remediate the areas of concern;
3. Conduct site inspections and meeting to observe field investigation and discuss the status of the investigations and cleanup; and
4. Conduct internal communications (i.e. meetings, memos) about the site.

California Regional Water Quality Control Board
Los Angeles Region

Winston H. Hickox
Secretary for
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Protection

320 W. 4th Street, Suite 200, Los Angeles, California 90013
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Gray Davis
Governor

April 5, 1999

Mr. Thomas Dong
SCS Engineers
3711 Long Beach Boulevard, Ninth Floor
Long Beach, CA 90807

SPILLS, LEAKS, INVESTIGATIONS AND CLEANUP OVERSIGHT COST REIMBURSEMENT ACCOUNT – EARL MANUFACTURING – 11862 BURKE STREET, SANTA FE SPRINGS, SANTA FE SPRINGS (SLIC NO. 725)

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2. Request and review workplan to characterize the whole site and remediate the areas of concern;
3. Conduct site inspections and meeting to observe field investigation and discuss the status of the investigations and cleanup; and
4. Conduct internal communications (i.e. meetings, memos) about the site.

Statement of Expected Outcome

During the Regional Board's 1998/1999 fiscal year, Board staff will provide written comments on the submitted workplans and reports, evaluate the adequacy and completeness of the investigation and cleanup and eventual site closure.

Billing Rate

The attachment "Monthly Salary Scales by Job Classification" is provided for employees expected to engage in the work or services for our facility. The name and classification or employees making charges will be listed on invoices. The average billing rate is approximately $70.00 per hour.

Estimate of Expected Charges

Board staff expects to charge 50 hours to your facility during this fiscal year. Based on the average billing rate of $70.00 per hour, the estimated billing charge for the subject site is $3,500. Please sign and return the enclosed "Acknowledgment of Receipt of Cleanup and Abatement Cost Recovery Letter by **May 5, 1999**.

If you have any questions, please contact Wendy Liu at (213) 576-6739.

Sincerely,

Dennis A. Dickerson
for Executive Officer
Los Angeles Regional Water Quality Control Board

Enclosure

SCS FAX

To: Wendy Liu
Fax #: ~~213~~ 266.7600 323
Re: Earl Manufacturing
Date: February 9, 1999
Pages: 4, including this cover sheet.

Based on the soil vapor data, it does not appear that significant concentrations of PCE are present in the tank pit area. As we discussed, we are looking for an NFA for the tank area only. If an NFA is possible based on this data, the client would be willing to enter into the cost recovery program.

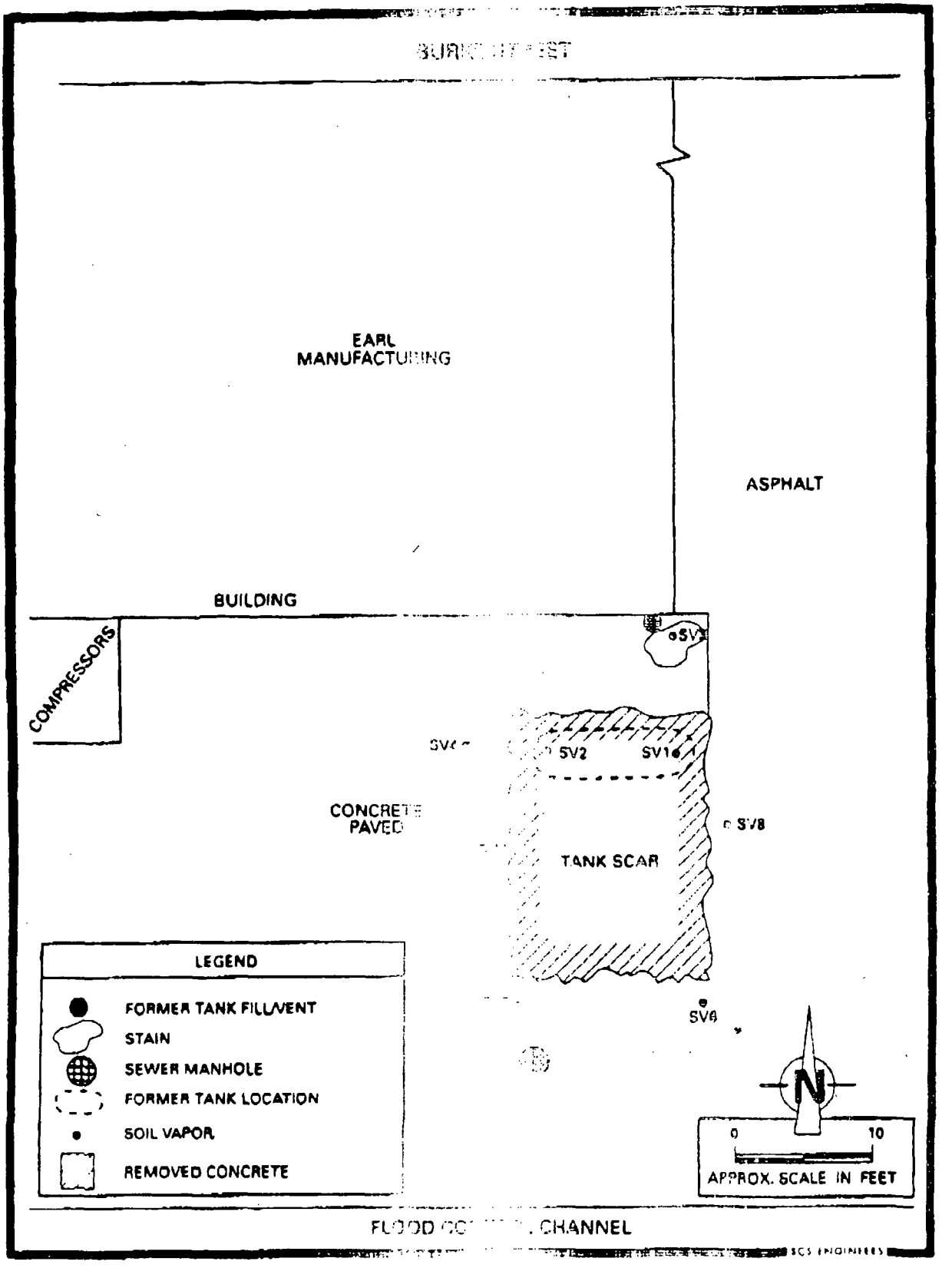
Please call if you have any questions. As always, we appreciate your assistance.

H:\Fax\AWQCB.FAX

From the desk of...

Thomas Dong, REA
Vice President
SCS ENGINEERS
3711 Long Beach Blvd., Ninth Floor
Long Beach, CA 90807

562 426-9544
Fax: 562 427-0805


BURBANK WEST
EARL MANUFACTURING
ASPHALT
BUILDING
COMPRESSORS
SV3
SV4
SV2
SV1
CONCRETE PAVED
SV8
TANK SCAR
SV6
LEGEND
FORMER TANK FILL/VENT
STAIN
SEWER MANHOLE
FORMER TANK LOCATION
SOIL VAPOR
REMOVED CONCRETE
N
0
10
APPROX. SCALE IN FEET
FLOOD CONTROL CHANNEL
SCS ENGINEERS

SCS ENGINEERS PROJECT # 0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK	SV1-10	SV1-18	SV2-10	SV2-18	SV3-5
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	06:39	09:00	09:22	09:44	10:06	10:28
SAMPLING DEPTH (feet)	-	10	18	10	18	5
VOLUME WITHDRAWN (cc)	200	180	260	180	260	140
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
cis-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
trans-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
METHYLENE CHLORIDE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	97%	91%	89%	100%	102%	92%
CHLOROBENZENE	108%	101%	101%	114%	116%	104%
4 BROMOFLUORO BENZENE	93%	90%	91%	102%	104%	94%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY MR. ALLEN GLOVER
DATA REVIEWED BY Blayne Hartman 11-24-98

02/09/1999 14:53 562-427-0805 TEG PAGE 03

teg

SCS ENGINEERS PROJECT # 0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	SV4-8	SV5-8	SV5-8 DUP	SV6-8	SV7-10	SV8-8
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	10:50	11:18	11:41	12:06	12:29	12:51
SAMPLING DEPTH (feet)	8	8	8	8	10	8
VOLUME WITHDRAWN (cc)	140	140	140	140	180	140
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLOROETHANE	nd	nd	nd	nd	nd	nd
[illegible]	nd	nd	nd	nd	nd	nd
1,1-DICHLOROETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	21	17	2.4	2.5	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	91%	92%	119%	92%	90%	89%
CHLOROBENZENE	103%	103%	117%	103%	101%	100%
4 BROMOFLUORO BENZENE	92%	90%	100%	91%	89%	90%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY:

02/09/1999 14:59 562-427-0805 [illegible] PAGE 04

RECORD OF COMMUNICATION	☒ Phone Call ☒ Discussion ☐ Field Trip ☐ Conference ☐ Other (specify)	
TO: Files	FROM: Wendy L.	DATE: 2/9/99
SUBJECT: Earl Manufacturing		FILE NO: SIC 75

SUMMARY OF COMMUNICATION:

Staff returned Tom Deng of SCS's ~~Phone~~ Call. Tom indicated that recent soil vapor samples taken around the tank showed very low VOCs concentration. ~~However~~ He will fax me results of the soil vapor sample. Elevated soil matrix & sludge samples were reported in 1997's report. Some soil samples used high detection limits. Tom indicated that if signing cont. accuracy will lead to a favorable result. They will sign it & they are asking for partial UST closure. Staff

CONCLUSIONS, ACTION TAKEN OR REQUIRED:

Need to review if soil gas sample results is acceptable. May need additional samples to confirm.

INFORMATION COPIES TO:

SOIL GAS AND LIMITED SOIL SAMPLING REPORT
11862 BURKE STREET
SANTA FE SPRINGS, CALIFORNIA

Prepared for:

Earl Manufacturing
11862 Burke Street
Santa Fe Springs, CA 90670

Prepared by:

SCS ENGINEERS
3711 Long Beach Blvd., 9th Floor
Long Beach, CA 90807
(562) 426-9544

December 1998
File No. 01198173

This Soil Gas and Limited Soil Sampling Report for property located 11862 Burke Street, Santa Fe Springs, California, dated December 1998, was prepared and reviewed by the following:

Kevin Green, R.G.
Project Manager

Thomas Dong, R.E.A
Project Director
SCS ENGINEERS

SOIL GAS AND LIMITED SOIL SAMPLING REPORT
11862 BURKE STREET
SANTA FE SPRINGS, CALIFORNIA

INTRODUCTION AND BACKGROUND

This submittal serves as SCS' report for the soil gas and limited soil sampling assessment that was conducted at the above-referenced site on November 13, 1998. A total of 10 soil vapor samples at 8 locations in the area of the former underground storage tank and associated fill port/vent pipe were sampled and analyzed for volatile organic compounds (VOCs) as listed in EPA Methods 8010/8020. In addition, two soil matrix samples were collected in the former tank area and analyzed for VOCs. A total of 15 samples (including blanks and a duplicate) were analyzed during the completion of field work.

On August 13, 1997, a 1,000 gallon underground storage tank was removed from the Earl Manufacturing property by United Pacific Environmental (UPE). Review of UPE's tank removal report indicated that the tank "was intact and only moderate rusting was noted." No holes were observed in the tank after removal from the ground.

After removal of the tank, the pit was backfilled with soil within approximately 8 inches of the surface. The area was covered with a plastic tarp which was removed by Earl Manufacturing personnel for access to complete this investigation.

According to the UPE report, soil samples were collected four feet below the tank invert (depth of samples was approximately 10 feet below grade) at each end of the tank. In addition, a sample of the sludge was also collected for laboratory analysis. These samples were analyzed for VOCs using EPA Method 8260.

Laboratory results of the tank sludge indicated that more than 20 VOCs were present in this sample. An abbreviated list of reported VOCs in the sludge is provided below:

- butylbenzene
- 1,2 dichloroethylene
- isopropylbenzene
- isopropyltoluene
- 1,1 dichloroethane (1,1, DCA)
- napthalene
- trimethylbenzene
- chloromethane

- methylene chloride
- tetrachloroethylene (PCE)
- 1,1,1 trichloroethane
- trichloroethylene (TCE)
- vinyl chloride
- total xylenes

However, only two VOCs (PCE and 1,1, DCA) were reported in soil samples collected beneath the tank. UPE reported PCE at 422,000 ug/kg in sample 1A (west end tank sample) and 1,470 ug/kg in sample 1B (east end tank sample). 1,1 DCA was reported in sample 1B only at 228 ug/kg.

SOIL GAS SURVEY AND LIMITED SOIL SAMPLING

A Strataprobe hydraulic-push rig was used to collect soil gas and soil matrix samples during field activities. Soil gas survey sample points were installed to a depth of approximately 5 to 18 feet (depending on location) below ground surface (bgs). In addition two soil matrix samples were collected at 11.5 and 20 feet bgs in the area of under tank sample 1A (reported with 422,000 ug/kg of tetrachloroethylene as referenced in UPE tank removal report). Soil gas and soil samples were analyzed for VOCs using EPA Methods 8010 and 8020. A map showing soil gas and soil sampling locations is provided in Attachment A.

Transglobal Environmental Geochemistry (TEG) of Solana Beach, California provided a mobile analytical laboratory and support personnel/equipment to assist SCS in completing the soil gas survey. As previously stated, field work was completed on November 13, 1998.

Materials and Methods

Each of the soil gas probes consisted of a hollow three quarter-inch diameter steel probe fitted with a steel drive tip and eighth-inch diameter Nylaflow tubing to recover samples. Probes were driven to the prescribed depth (between 5 and 18 feet depending on location) using a Strataprobe direct push drill rig. Soil gas samples were collected by slightly retracting the probe, exposing sampling ports in the drive tip, and withdrawing subsurface vapors through the Nylaflow tubing using a disposal syringe. Appropriate volumes of vapor were withdrawn to purge the Nylaflow tubing and recover a representative soil gas sample. A syringe was used to recover soil vapor samples for laboratory analysis. New Nylaflow tubing and clean syringes were used for each sample.

Soil samples were collected using a split-spoon sampler equipped with acetate-lined plastic sleeves. According to on-site personnel, the depth of the tank excavation (prior to backfilling) was approximately 10 feet bgs. Therefore, SCS collected two soil matrix samples at depths of 11.5 and 20 feet bgs. Recovered soil samples were a medium brown, slightly moist clayey silt with no noticeable odor or staining.

Soil gas samples were immediately taken to the on-site state-certified TEG lab and the contents injected directly into the gas chromatograph for analysis. The two soil samples collected from the tank pit area were analyzed for VOCs using EPA Methods 8010 and 8020 on November 14, 1998 by TEG. Chain-of-custody documentation was completed in order to accurately track the samples from the point of collection through analysis.

ANALYTICAL RESULTS

Soil Vapor

Analytical data and a facility map with soil gas sampling locations are provided in Attachment A. As shown in the data, only 3 of the 10 soil vapor samples collected from the tank area resulted in detectable concentrations of PCE. The highest concentration of PCE was found in location SV5 (at 8 feet bgs) at 21 ug/l (micrograms per liter). Other chlorinated degradation products (e.g., 1,2-dichloroethene, 1,1-dichloroethene, and trichloroethene) were not detected in soil gas samples analyzed from the site.

Soil Samples

As previously stated, two soil samples were collected beneath the former tank area where elevated concentrations of PCE (422,000 ug/kg) were reported by UPE. Laboratory results for these samples collected at 11.5 and 20 feet bgs in the same area resulted in respective PCE concentrations of 270 and 950 ug/kg. These PCE soil concentrations are significantly lower than the values reported by UPE in their tank removal report.

SUMMARY

Results of the soil gas survey indicate that no significant PCE vapor is present in subsurface soils in the area of the former underground storage tank. Although soil samples contained detectable concentrations of PCE, it is the opinion of SCS that the concentrations detected do not warrant further investigation and/or remediation. This opinion is based on the following:

- Data generated during this investigation did not indicate the tank pit area contained elevated concentrations of PCE or other VOCs in soil vapor.
- PCE concentrations detected in soil samples do not corroborate the findings of UPE as stated in their tank removal report dated September 12, 1997.

- The concentrations of PCE detected in soil samples are well below the EPA Region IX Preliminary Remediation Goals (PRGs) for industrial sites (16 mg/kg) and for residential sites (4.7 mg/kg).

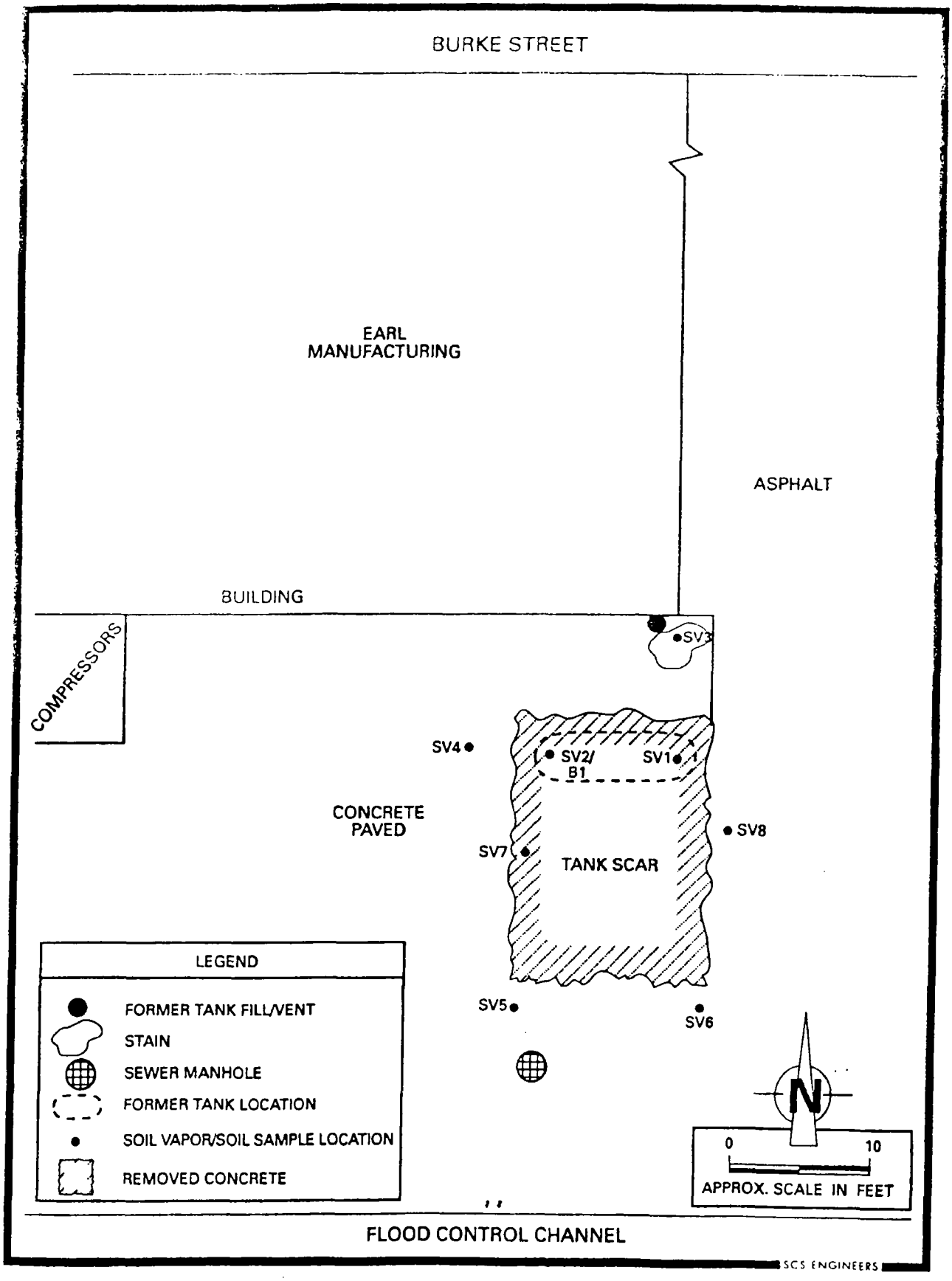
- Ground water was not encountered by SCS during field work.

- Ground water in this area of Santa Fe Springs has been contaminated with VOCs including PCE, TCE, etc.

- Based on extent of VOC ground water contamination in this area of Santa Fe Springs, the Los Angeles Regional Water Quality Control Board may designate this area as a regional ground water contaminant "corridor."

Therefore, on behalf of Earl Manufacturing, SCS respectfully requests a no further action letter from the City of Santa Fe Springs Fire Department.

ATTACHMENT A
MAP AND ANALYTICAL DATA



Map Showing Soil Vapor and Soil Sample Locations

teg

SCS ENGINEERS PROJECT # 0198173
EARL MANUFACTURING
11362 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK	SV1-10	SV1-18	SV2-10	SV2-18	SV3-5
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	06:39	09:00	09:22	09:44	10:06	10:28
SAMPLING DEPTH (feet)	--	10	18	10	18	5
VOLUME WITHDRAWN (cc)	200	180	260	180	260	140
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	97%	91%	89%	100%	102%	92%
CHLOROBENZENE	108%	101%	101%	114%	116%	104%
4 BROMOFLUORO BENZENE	93%	90%	91%	102%	104%	94%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY: Blayne Hartman 11-24-98

November 24, 1998

Mr. Tom Dong
Secor
2655 Camino Del Rio North
Suite 302
San Diego, CA 92108

SUBJECT: DATA REPORT – EARL MANUFACTURING – 11862 BURKE STREET – SANTA FE SPRINGS, CA - SECOR PROJECT #0198173

TEG Project # 981113WI

Mr. Dong:

Please find enclosed a data report for the above referenced location. Samples were analyzed on-site in TEG's DOHS certified mobile laboratory (CERT #1745).

Project Summary

The following analyses were conducted:

- 2 soils & 10 vapors for volatile halogenated hydrocarbons by EPA Method 8010
- 2 soils & 10 vapors for volatile aromatic hydrocarbons (BTEX) by Modified EPA Method 8020

The samples were received on-site in appropriate containers with appropriate labels, seals, and chain-of-custody documentation.

Project Narrative

The results for all analyses and required QA/QC analyses are summarized in the enclosed tables. All calibrations, blanks, surrogates, and spike recoveries fulfill quality control criteria. No data qualifiers (flags) apply to any of the reported data.

TEG appreciates the opportunity to provide analytical services to Secor on this project. If you have any questions relating to this data or report, please do not hesitate to contact us.

Sincerely,

Dr. Blayne Hartman

432 NORTH CEDROS AVENUE • SOLANA BEACH, CA 92075 • 619-793-0401 • FAX 619-793-0404

teg

SCS ENGINEERS PROJECT # 0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	SV4-8	SV5-8	SV5-8 DUP	SV6-8	SV7-10	SV8-8
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	10:50	11:18	11:41	12:06	12:29	12:51
SAMPLING DEPTH (feet)	8	8	8	8	10	8
VOLUME WITHDRAWN (cc)	140	140	140	140	180	140
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	21	17	2.4	2.5	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	91%	92%	119%	92%	90%	89%
CHLOROBENZENE	103%	103%	117%	103%	101%	100%
4 BROMOFLUORO BENZENE	92%	90%	100%	91%	89%	90%

ND = COMPOUNDS NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY: Blayne Hartman 11-24-98

teg

SCS ENGINEERS PROJECT #0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) SOIL ANALYSES IN UG/KG

Sample ID	BLANK	SV2/B1-11.5	SV2/B1-11.5	SV2/B1-20	SV2/B1-20
Date	11/14/98	11/14/98	11/14/98	11/14/98	11/14/98
Time	8:24	12:38	14:20	13:08	15:34
Dilution Factor	1	1	5	1	20
CARBON TETRACHLORIDE	nd	nd	--	nd	--
CHLOROFORM	nd	nd	--	nd	--
1,1-DICHLORO ETHANE	nd	100	--	>>>>>	190
1,2-DICHLORO ETHANE	nd	nd	--	nd	--
1,1-DICHLORO ETHENE	nd	nd	--	nd	--
CIS-1,2-DICHLORO ETHENE	nd	nd	--	nd	--
TRANS-1,2-DICHLORO ETHENE	nd	nd	--	nd	--
DICHLOROMETHANE	nd	nd	--	nd	--
TETRACHLORO ETHENE	nd	>>>>>	270	>>>>>	950
1,1,1,2-TETRACHLORO ETHANE	nd	nd	--	nd	--
1,1,2,2-TETRACHLORO ETHANE	nd	nd	--	nd	--
1,1,1-TRICHLORO ETHANE	nd	3.0	--	7.8	--
1,1,2-TRICHLORO ETHANE	nd	nd	--	nd	--
TRICHLORO ETHENE	nd	8.0	--	11	--
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	--	nd	--
BENZENE	nd	nd	--	nd	--
CHLOROBENZENE	nd	nd	--	nd	--
ETHYLBENZENE	nd	nd	--	nd	--
TOLUENE	nd	nd	--	nd	--
m&p-XYLENES	nd	nd	--	nd	--
o-XYLENE	nd	nd	--	nd	--
SURROGATES					
1,4 DIFLUORO BENZENE	107%	99%	113%	105%	108%
BROMOFLUORO BENZENE	104%	102%	107%	99%	112%

ND INDICATES NOT DETECTED AT DETECTION LIMIT OF 5 UG/KG FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S CA DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: MR. ALLEN GLOVER

DATA REVIEWED BY: Diane Lautman 11-24-98

teg

QA/QC - CALIBRATION DATA

DATE: 11-13-98
TEG Project #981113W1
WINNEBAGO I

SUPPLY SOURCE: CONTINUING CALIBRATION (OPENING) ACCUSTANDARD LOT # A7120160
SUPPLY SOURCE: QUALITY CONTROL (CLOSING) ACCUSTANDARD LOT # A7120170
INSTRUMENT: SHIMADZU GC14A RIGHT

			OPENING STANDARD					CLOSING STANDARD				
COMPOUND	DETECTOR	AVE RF	MASS	RT	AREA	RF	%DIFF	MASS	RT	AREA	RF	%DIFF
1,1-DICHLORO ETHANE	HALL	125.0	20	7.1	2,497	124.9	1.6%	20	7.1	2,376	118.8	3.3%
1,2-DICHLORO ETHANE	HALL	220.3	20	9.4	4,541	227.1	3.1%	20	9.4	4,796	239.8	8.9%
1,1-DICHLORO ETHENE	PID	9.3	20	5.4	167	8.4	10.2%	20	5.4	190	9.5	2.2%
CIS-1,2-DICHLORO ETHENE	PID	12.0	20	7.9	267	13.4	11.3%	20	7.9	251	12.6	4.6%
TRANS-1,2-DICHLORO ETHENE	PID	20.9	20	6.4	446	22.3	6.7%	20	6.4	445	22.3	6.5%
TETRACHLORO ETHENE	PID	12.5	20	14.3	286	14.3	14.4%	20	14.3	279	14.0	11.6%
1,1,1-TRICHLORO ETHANE	HALL	131.9	20	8.8	2,898	144.9	9.9%	20	8.8	2,979	149.0	12.9%
1,1,2-TRICHLORO ETHANE	HALL	96.7	20	13.6	2,158	107.9	11.6%	20	13.6	1,971	98.6	1.9%
TRICHLORO ETHENE	PID	16.1	20	10.5	330	16.5	2.5%	20	10.5	307	15.4	4.7%
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	HALL	16.2	20	5.3	293	14.7	9.6%	20	5.3	346	17.3	6.8%
BENZENE	PID	27.0	20	9.5	559	28.0	3.5%	20	9.5	531	26.6	1.7%
ETHYLBENZENE	PID	27.1	20	16.2	523	26.2	3.5%	20	16.2	472	23.6	12.9%
TOLUENE	PID	26.9	20	12.9	588	29.4	9.3%	20	12.9	547	27.4	1.7%
m&p-XYLENES	PID	31.5	40	16.4	1,326	33.2	4.2%	40	16.4	1,038	26.0	18.4%
o-XYLENE	PID	26.1	20	17.4	531	26.6	1.0%	20	17.4	467	23.4	11.2%
1,4-DIFLUORO BENZENE	PID	10.7	20	9.8	242	12.1	12.0%	20	9.8	227	11.4	5.1%
CHLOROBENZENE	PID	24.8	20	16.1	552	27.6	12.2%	20	16.1	497	24.9	1.0%
4-BROMOFLUORO BENZENE	PID	41.1	20	19.1	871	43.6	6.0%	20	19.1	798	39.9	2.9%

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY:

Wayne Workman
11-24-98

teg

QA/QC REPORT - CALIBRATION DATA

DATE: 11/14/98
TEG Project #981113W1
WINNEBAGO 1 (cert #1745)

SUPPLY SOURCE:ACCUSTANDARD A7120160 -- A7120170
INSTRUMENT: SHIMADZU GC14A PURGE & TRAP

			OPENING STANDARD					CLOSING STANDARD				
COMPOUND	DETECTOR	AVE RF	MASS	RT	AREA	RF	%DIFF	MASS	RT	AREA	RF	%DIFF
1,1-DICHLORO ETHANE	HALL	134.1	40	8.5	5,883	147.1	9.7%	40	8.5	6,267	156.7	16.8%
1,2-DICHLORO ETHANE	HALL	161.1	40	11.5	7,078	177.0	9.8%	40	11.5	7,102	177.6	10.2%
1,1-DICHLORO ETHENE	PID	2.2	40	6.5	84	2.1	2.8%	40	6.5	83	2.1	3.4%
CIS-1,2-DICHLORO ETHENE	PID	3.0	40	9.5	113	2.8	5.1%	40	9.5	122	3.1	2.5%
TRANS-1,2-DICHLORO ETHENE	PID	5.1	40	7.7	195	4.9	3.8%	40	7.7	229	5.7	13.0%
TETRACHLORO ETHENE	PID	3.4	40	17.8	138	3.5	2.4%	40	17.8	145	3.6	7.6%
1,1,1-TRICHLORO ETHANE	HALL	149.4	40	10.7	6,317	157.9	5.7%	40	10.7	5,475	136.9	8.4%
1,1,2-TRICHLORO ETHANE	HALL	97.4	40	16.9	4,339	108.5	11.4%	40	16.9	4,440	111.0	14.0%
TRICHLORO ETHENE	PID	3.8	40	12.9	149	3.7	1.0%	40	12.9	155	3.9	3.0%
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	HALL	68.0	40	6.3	2,777	69.4	2.1%	40	6.3	2,934	73.4	7.8%
BENZENE	PID	7.0	40	11.5	264	6.6	6.3%	40	11.5	281	7.0	0.2%
1,4 DFB	PID	2.3	40	12.0	91	2.3	2.4%	40	12.0	93	2.3	0.2%
BFB	PID	5.9	40	23.8	244	6.1	3.8%	40	23.8	243	6.1	3.4%
ETHYLBENZENE	PID	7.0	40	20.3	300	7.5	7.6%	40	20.3	285	7.1	2.2%
TOLUENE	PID	6.9	40	16.0	287	7.2	4.0%	40	16.0	301	7.5	9.1%
m&p-XYLENES	PID	7.8	80	20.5	635	7.9	1.9%	80	20.5	684	8.6	9.7%
o-XYLENE	PID	3.7	40	21.8	281	7.0	4.2%	40	21.8	305	7.6	13.1%

ANALYSES PERFORMED ON-SITE IN TEG'S CA DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY:

Blayne Hartman
11-24-98

teg

QA/QC REPORT - MS/MSD

DATE [illegible]
TEG Project #981113W1
WINNEBAGO I (cert #1745)

SUPPLY SOURCE: ACCUSTANDARD A7120170
INSTRUMENT: SHIMADZU GC14A PURGE & TRAP
SAMPLE: B1-10

COMPOUND	DETECTOR	AVE RF	SPIKE	MS RECOV.	%RECOV	MSD RECOV.	%RECOV	RPD	ACCEPTABLE RPD	ACCEPTABLE RECOVERY
1,1-DICHLORO ETHANE	HALL	134.1	50	53.5	107.0%	51.0	102.0%	4.8%	15%	65% - 135%
1,2-DICHLORO ETHANE	HALL	161.1	50	56.2	112.4%	59.3	118.6%	5.4%	15%	65% - 135%
1,1-DICHLORO ETHENE	PID	2.2	50	46.8	93.6%	45.2	90.4%	3.5%	15%	65% - 135%
CIS-1,2-DICHLORO ETHENE	PID	3.0	50	43.7	87.4%	44.6	89.2%	2.0%	15%	65% - 135%
TRANS-1,2-DICHLORO ETHENE	PID	5.1	50	48.3	96.6%	46.3	92.6%	4.2%	15%	65% - 135%
TETRACHLORO ETHENE	PID	3.4	50	45.9	91.8%	45.4	90.8%	1.1%	15%	65% - 135%
1,1,1-TRICHLORO ETHANE	HALL	149.4	50	62.3	124.6%	61.5	123.0%	1.3%	15%	65% - 135%
1,1,2-TRICHLORO ETHANE	HALL	97.4	50	57.2	114.4%	59.2	118.4%	3.4%	15%	65% - 135%
TRICHLORO ETHENE	PID	3.8	50	46.2	92.4%	46.2	92.4%	0.0%	15%	65% - 135%
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	HALL	98.6	50	55.3	110.6%	57.5	115.0%	3.9%	15%	65% - 135%
BENZENE	PID	7.0	50	43.3	86.6%	44.1	88.2%	1.8%	15%	65% - 135%
1,4 DFB	PID	2.3	50	43.8	87.6%	45.5	91.0%	3.8%	15%	65% - 135%
BFB	PID	5.9	50	42.7	85.4%	45.1	90.2%	5.5%	15%	65% - 135%
ETHYLBENZENE	PID	7.0	50	47.8	95.6%	50.4	100.8%	5.3%	15%	65% - 135%
TOLUENE	PID	6.9	50	49.2	98.4%	47.4	94.8%	3.7%	15%	65% - 135%
m&p-XYLENES	PID	7.8	100	97.1	97.1%	93.3	93.3%	4.0%	15%	65% - 135%
o-XYLENE	PID	6.7	50	46.7	93.4%	48.4	96.8%	3.6%	15%	65% - 135%

ANALYSES PERFORMED ON-SITE IN TEG'S CA DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY:

Dwayne Hartman
11-24-98

teg

SCS ENGINEERS PROJECT #0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113V1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
AREA COUNTS

	BLANK	BLANK	SV1-10	SV1-10	SV1-18	SV1-18	SV2-10	SV2-10
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	6:39	6:39	9:00	9:00	9:22	9:22	9:44	9:44
SAMPLING DEPTH (feet)	--	--	10	10	18	18	10	10
VOLUME WITHDRAWN (cc)	200	200	180	180	260	260	180	180
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES								
1,4 DIFLUORO BENZENE	9.9	210	9.8	197	9.6	193	9.7	217
CHLOROBENZENE	16.2	531	16.1	497	16.0	496	16.1	563
4 BROMOFLUORO BENZENE	19.2	766	19.0	742	19.0	745	19.1	837

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY:

SCS ENGINEERS PROJECT #0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
AREA COUNTS

	SV2-11	SV2-11	SV3-5	SV3-5	SV4-8	SV4-8	SV5-8	SV5-8
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	10:06	10:06	10:28	10:28	10:50	10:50	11:18	11:18
SAMPLING DEPTH (feet)	11	11	5	5	8	8	8	8
VOLUME WITHDRAWN (cc)	260	260	140	140	140	140	140	140
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd	14.4	257
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES								
1,4 DIFLUORO BENZENE	9.7	321	9.8	199	9.8	197	9.9	199
CHLOROBENZENE	16.1	372	16.1	513	16.1	507	16.2	508
1,4 BROMOFLUORO BENZENE	19.1	361	19.1	776	19.1	753	19.2	743

nd = COMPOUND NOT DETECTED AT A DETECTION LIMIT OF 10 UG/L AIR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY:

SCS ENGINEERS PROJECT #0198173
EARL MANUFACTURING
[illegible] BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDRCCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
AREA COUNTS

	SV5-8 DUP	SV5-8 DUP	SV6-8	SV6-8	SV7-10	SV7-10	SV8-8	SV8-8
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	11:41	11:41	12:06	12:06	12:29	12:29	12:51	12:51
SAMPLING DEPTH (feet)	8	8	8	8	10	10	8	8
VOLUME WITHDRAWN (cc)	140	140	140	140	180	180	140	140
VOLUME INJECTED	1	1	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1	1	1
	RT	AREA	RT	AREA	RT	AREA	RT	AREA
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	14.4	208	14.4	31	14.4	31	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd	nd	nd
SURROGATES								
1,4 DIFLUORO BENZENE	9.8	258	9.9	198	9.9	194	9.8	192
CHLOROBENZENE	16.2	577	16.2	507	16.1	499	16.1	494
4 BROMOFLUORO BENZENE	19.2	824	19.2	748	19.1	735	19.1	736

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)
ANALYSES PERFORMED BY: MR. ALLEN GLOVER
DATA REVIEWED BY:

EARL MFG. CO., INC. • 11862 Burke Street • Santa Fe Springs, California 90670
(213) 945-2971 (new area code 562)

98 JAN -5 PM 1:21

DECEMBER 29,1997

MR. J.E. ROSS, UNIT CHIEF
SITE CLEANUP UNIT
REGIONAL WATER QUALITY CONTROL BOARD
101 CENTRE PLAZA DRIVE
MONTEREY PARK,CA 97754-2156

RE: CASE REFERRAL FROM CITY OF SANTA FE SPRINGS FIRE DEPARTMENT-
11862 BURKE STREET,SANTA FE SPRINGS (SLIC NO. 725)

IN REGARDS TO THE ABOVE MATTER THIS LETTER IS TO REQUEST AN EXTENSION FOR THE RETURN OF THE CLEANUP AND ABATEMENT COST RECOVERY LETTER MAILED BY YOUR OFFICE AND DATED 12/02/97.

YOU HAVE REQUESTED THAT I RETURN THIS DOCUMENT TO YOUR OFFICE BY 1/05/98. DUE TO THE HOLIDAY SEASON MY ATTORNEY AND CONSULTANT HAVE NOT BEEN AVAILABLE TO REVIEW AND ADVISE ME ON THIS MATTER. THEREFORE,I MUST REQUEST AN EXTENSION OF 30 DAYS.

SINCERELY,

Claudette Earl

CLAUDETTE EARL
EARL MANUFACTURING CO.,INC.

EARL MFG. CO., INC.
11876 Burke Street
Santa Fe Springs, California 90670

(562) 945-2971

MR. J.E. ROSS,UNIT CHIEF
SITE CLEANUP UNIT
REGIONAL WATER QUALITY CONTROL BOARD
101 CENTRE PLAZA DRIVE
MONTEREY PARK,CA
97754-2156

91754-2156 36

EARL MFG. CO., INC. • 11862 Burke Street • Santa Fe Springs, California 90670
(213) 945-2971 (new area code 562)

DECEMBER 29,1997

MR. J.E. ROSS, UNIT CHIEF
SITE CLEANUP UNIT
REGIONAL WATER QUALITY CONTROL BOARD
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SINCERELY,

CLAUDETTE EARL
EARL MANUFACTURING CO.,INC.

Cal/EPA

Los Angeles
Regional Water
Quality Control
Board

01 Centre Plaza Drive
Monterey Park, CA
91754-2156
213) 266-7500
FAX (213) 266-7600

Pete Wilson
Governor

December 2, 1997

Ms. Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

CASE REFERRAL FROM CITY OF SANTA FE SPRINGS FIRE DEPARTMENT - 11862 BURKE STREET, SANTA FE SPRINGS (SLIC NO. 725)

The City of Santa Fe Springs Fire Department has determined that Earl Manufacturing has been impacted by volatile organic compounds (VOCs). Elevated concentrations of VOCs detected in soil and sludge samples indicate a potential threat to groundwater. Based on these findings, the Fire Department has transferred your case to this Regional Board.

You are being requested to participate in our cost recovery program in order to address our costs in overseeing the investigation, remediation, and closure of your site. Under separate cover we are transmitting a cost recovery package signed by our Executive Officer. Please respond it to this office by **January 5, 1998.**

If you have any questions regarding this matter, please contact Wendy Liu at (213)266-7530.

J. E. ROSS, Unit Chief
Site Cleanup Unit

cc: Mr. Dave Klunk, Fire Department, City of Santa Fe Springs

Cal/EPA

Los Angeles
Regional Water
Quality Control
Board

101 Centre Plaza Drive
Monterey Park, CA
91754-2156
(213) 266-7500
FAX (213) 266-7600

Pete Wilson
Governor

December 2, 1997

Ms. Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

SPILLS, LEAKS, INVESTIGATIONS AND CLEANUP OVERSIGHT COST REIMBURSEMENT ACCOUNT - EARL MANUFACTURING - 11862 BURKE STREET, SANTA FE SPRINGS (SLIC NO. 725)

Dear Ms. Earl:

The California Water Code (CWC), Section 13304, allows the Regional Board to recover reasonable expenses from the responsible party to oversee cleanup of unregulated releases which have adversely affected waters of the State.

Various chlorinated volatile organic compounds were detected during the removal of a former 1,000 gallons underground storage tank activity occurred on July 1997.

Sludge and soil samples were taken from the tank and four feet below the bottom of the tank. Up to 7,180 mg/kg and 422 mg/kg of tetrachloroethylene were reported in sludge and soil samples. Other compounds such as 1,1-dichloroethane, trichloroethylene and 1,1,1-trichloroethane were also reported with elevated concentrations. The first encountered shallow groundwater was around 24 to 40 feet below ground surface. The soil below the tank was a sandy silt. The released products were determined to be a threat to the groundwater quality. A site assessment and remediation is required.

During fiscal year 1997/1998, work to be performed by Board staff include review and response to site assessment workplans and reports, inspections, and meetings/conference calls.

The expected outcome of work performed include approval of site assessment work plans, corrective action plans, post remedial action monitoring/verification sampling plans, and reports of site activities.

We estimate that we will spend approximately 95 labor hours per year in the conduct of such oversight. The actual time needed will depend upon the nature and extent of the cleanup and your willingness to accomplish the cleanup in a timely manner. The State billing rate is approximately $70.00 per hour.

A detailed description of the billing procedure and salary scale are enclosed. We are requesting your acknowledgment of cost recovery obligations to reimburse the State of California for staff oversight by signing and returning the acknowledgment on or before **January 5, 1998.**

If you have any questions concerning the billing procedure, please contact Wendy Liu at (213) 266-7530 or Jim Ross, Site Cleanup Unit chief at (213) 266-7550.

Catherine Lynell, AEO

DENNIS A. DICKERSON
Executive Officer

Enclosures

WL

Cal/EPA

Pete Wilson
Governor

Los Angeles
Regional Water
Quality Control
Board

01 Centre Plaza Drive
Monterey Park, CA
1754-2156
213) 266-7500
AX (213) 266-7600

December 2, 1997

Ms. Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

CASE REFERRAL FROM CITY OF SANTA FE SPRINGS FIRE DEPARTMENT - 11862 BURKE STREET, SANTA FE SPRINGS (SLIC NO. 725)

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J. E. ROSS, Unit Chief
Site Cleanup Unit

cc: Mr. Dave Klunk, Fire Department, City of Santa Fe Springs

Cal/EPA

Los Angeles
Regional Water
Quality Control
Board

101 Centre Plaza Drive
Monterey Park, CA
91754-2156
(213) 266-7500
FAX (213) 266-7600

Pete Wilson
Governor

December 2, 1997

Ms. Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

SPILLS, LEAKS, INVESTIGATIONS AND CLEANUP OVERSIGHT COST REIMBURSEMENT ACCOUNT - EARL MANUFACTURING - 11862 BURKE STREET, SANTA FE SPRINGS (SLIC NO. 725)

Dear Ms. Earl:

The California Water Code (CWC), Section 13304, allows the Regional Board to recover reasonable expenses from the responsible party to oversee cleanup of unregulated releases which have adversely affected waters of the State.

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Sludge and soil samples were taken from the tank and four feet below the bottom of the tank. Up to 7,180 mg/kg and 422 mg/kg of tetrachloroethylene were reported in sludge and soil samples. Other compounds such as 1,1-dichloroethane, trichloroethylene and 1,1,1-trichloroethane were also reported with elevated concentrations. The first encountered shallow groundwater was around 24 to 40 feet below ground surface. The soil below the tank was a sandy silt. The released products were determined to be a threat to the groundwater quality. A site assessment and remediation is required.

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The expected outcome of work performed include approval of site assessment work plans, corrective action plans, post remedial action monitoring/verification sampling plans, and reports of site activities.

Recycled Paper

We estimate that we will spend approximately 95 labor hours per year in the conduct of such oversight. The actual time needed will depend upon the nature and extent of the cleanup and your willingness to accomplish the cleanup in a timely manner. The State billing rate is approximately $70.00 per hour.

A detailed description of the billing procedure and salary scale are enclosed. We are requesting your acknowledgment of cost recovery obligations to reimburse the State of California for staff oversight by signing and returning the acknowledgment on or before **January 5, 1998.**

If you have any questions concerning the billing procedure, please contact Wendy Liu at (213) 266-7530 or Jim Ross, Site Cleanup Unit chief at (213) 266-7550.

Catherine Tyrrell, AEO

DENNIS A. DICKERSON
Executive Officer

Enclosures

Fire Department
CITY OF SANTA FE SPRINGS

HEADQUARTERS FIRE STATION · (310) 944-9713 · FAX (310) 941-1817
11300 GREENSTONE AVE. · SANTA FE SPRINGS 90670-4619

October 24, 1997

Mr. Jim Ross
Los Angeles Regional Water Quality Control Board
101 Centre Plaza Drive
Monterey Park, CA 91754

Dear Mr. Ross:

SUBJECT: **EARL MANUFACTURING, 11862 BURKE STREET, SANTA FE SPRINGS**

The Santa Fe Springs Fire Department is in receipt of information indicating the existence of a serious threat to groundwater from halogenated volatile organic compounds (HVOC's) at this site.

A 1000 gallon underground storage tank (UST) was removed on July 17, 1997, and following the usual UST tank removal protocols, two "bucket samples" of soil from either end of the tank pit were taken. A sample of an approximately one foot thick sludge at the bottom of the tank was also taken.

Analyses by EPA Methods 8260, 6010, 8015M, and pH were done on the sludge sample. In this sludge sample, the total volatile organic compounds (VOC's) approached 2% (1.8%), and included PCE @ 7180 mg/Kg(7,180,000 ug/Kg), 1,1,1-TCA @ 1780 mg/Kg (1,780,000 ug/Kg), and TCE @ 632 mg/Kg(632,000 ug/Kg). The VOC sludge detect limits were typically 1000 ug/Kg. Total lead (Pb) was found at 508 mg/Kg. Petroleum hydrocarbon analysis by a modified method 8015 showed total recoverable petroleum hydrocarbons to be approximately 38% (379,000 mg/Kg) with recoverable C<10 through C14 "light ends" being around 13% of the sludge, with C39/C40 being "ND". The pH was 4.25 units.

The material in the tank, according to Earl Manufacturing, was a machine cooling fluid called "Trim-Sol". The MSDS shows that this material contains "petroleum oils" from 30-40% , "chlorinated alkene polymer" from 20 to 30%, "petroleum sulfonate" from 20-30%, and other compounds.

One of the soil samples showed PCE @ 422 mg/Kg(422,000 ug/Kg). The other 8260 analytes were "ND" but at a 25,000 ug/Kg (25 mg/Kg) detect limit. The other soil sample showed 1470 ug/Kg PCE., and 228 ug/Kg 1,1-DCA with other analytes "ND" at 100 ug/Kg detect limit. TRPH by Method 418.1 was 1840 mg/Kg in the high-HVOC sample, and 112 mg/Kg in the other.

The soil is sandy silt, and first groundwater is from 25 to 40 feet bgs, according to the consultant. This is apparently based on information from the Los Angeles County Department of Public Works. Well 165K was sited. The contact person for Earl's Manufacturing is Ms. Claudette Earl. The consultant preparing the report originally sent to Brenda Nelson of this office on September 12, 1997, is United Pacific Environmental (UPE) of Signal Hill. Their phone number is (562) 981-3346.

Based on the data in the UPE report, the SFSFD finds reason for great concern regarding potential ground water threats from this release, and asks that your agency expedite oversight of any corrective action at this site to minimize impacts to groundwater in the Santa Fe Springs City area, and to please keep the SFSFD informed of your actions at this site.

Should you have any questions about this matter, please contact Steve Chase of this office.

Sincerely,

NORBERT P. SCHNABEL, FIRE CHIEF

Dave Klunk,
Director of Environmental Services

DK/sc

C: Ms Claudette Earl, Earl Manufacturing
11876 E. Burke Street, Santa Fe Springs, CA 90670

Mr. David Lesperance, CEG
United Pacific Environmental
2699 E. 28th St, Suite #405
Signal Hill, CA 90806